

CLASSIFICATION SECRET

# REPORT

CD NO.

DATE DISTR. 21 June 1954

NO. OF PAGES 3

NO. OF ENCLS.  
(LISTED BELOW)

SUPPLEMENT TO  
REPORT NO.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES, WITHIN THE MEANING OF TITLE 18, SECTIONS 793 AND 794, OF THE U. S. CODE, AS AMENDED. ITS TRANSMISSION OR REVELATION OF ITS CONTENTS TO OR RECEIPT BY AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. THE REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

1. The East German Production and Construction Office for Power (PKE) has made designs for the Russians. The Russians ordered that two 1,600 kw condensation turbines be designed and that the necessary workshop blueprints be completed. The order further included the delivery of data (Unterlagen) on the condensation equipment. This order is one of the 42 power installations which the USSR ordered from DIA. The following are the most important materials used for this order:

turbine blades	25 Mn V8
end stage (Endstufe)	X 20 Cr 13 V 80
cover plate (Deckbleche)	X 20 Cr 13
nozzle scroll segments	St 45.82
high-pressure nozzles	X 20 Cr 13
guide wheel (Leitring) segments	C 35
guide vanes (Leitschaufeln)	25 Mn V8
nozzle covers	grey cast iron
nozzle plates	C 12

KE also received an order from the Russians to develop, design and complete necessary blueprints for the construction of seven 1,600 kw inclosed condensation turbines (Eingehäuse-Kondensationsturbinen) complete with condensor installations. These also belonged to the order given to DIA mentioned above. The same types of material were used as for the 1,600 kw condensation turbine mentioned above except that the nozzle scroll segments were of type Stg. 45.81 S.

2. On 1 November 1953 a Main Repair Office (Reparatur-Leitstelle) began operations. It was apparently established by the Ministry for Machine Construction. It is the duty of the Main Repair Office to direct and supervise all repairs in the field of turbine construction in East Germany. East German power plant managers are required to inform this Office of all necessary repairs. The Office then has the job of establishing a work plan for those firms which construct turbines. The following are the firms in question:

CLASSIFICATION      SECRET

CLASSIFICATION				DISTRIBUTION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
STATE	<input checked="" type="checkbox"/>	NAVY	<input checked="" type="checkbox"/>	NSRB																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
ARMY	<input checked="" type="checkbox"/>	AIR	<input checked="" type="checkbox"/>	FBI	ORR	E	x																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										



Maschinenbau Goerlitz (formerly Wumag)  
Dresdener Turbinenfabrik  
Bergmann-Borsig, Berlin  
Schaufelfraeserei Suhl, Thuringia

Schaufelfraeserei Suhl is to take care of all turbine blade milling (Schaufelfraeserei) in East Germany. Sudden breakdowns of equipment in large power plants have the highest priority and are processed by this Office immediately. In such cases, the Office prepares the workshop designs needed to make the repairs right at the power plant.

3. The Office will probably incur the following difficulties in carrying out its tasks:

- a. The number of different types of power plant turbines in operation in East Germany is so great that it will be difficult for the Office to have a clear idea of the work it has to do.
- b. Only in a few cases are the construction designs for the turbines available.
- c. It will be very difficult to standardize to any extent the repair work which the Office will have to do.
- d. It will be necessary to procure an especially large variety of equipment (Fertigungs-Vorrichtungen) so that the many different kinds of repairs can be carried out.
- e. The Office will have to adapt its work to the East German limitations; that is, even in special cases no orders may be placed in West Germany.

4. The following is an example of the modus operandi of the Office:

The Neptun-Werft in Rostock has an urgent order to repair the ice-breaker CASTOR for the USSR. The construction of a replacement turbine blade is to be carried out by the Dresdener Turbinenfabrik by the third quarter of 1954. The Neptun-Werft submitted a request to the Main Repair Office for the rapid completion of the order, since the ship has to be completed and ready for delivery to the Russians by the fourth quarter of 1954. The Main Repair Office replied to the request of the Neptun-Werft by stating that speedy construction of the replacement blade cannot be carried out because the production plan of the Dresdener Turbinenfabrik is completely taken up with the new construction orders for the USSR, and the Office does not have the authority to order that the new construction orders be put aside. Therefore, the problem will have to be decided by the Main Administration for Electric Power of the State Secretariat, Berlin W 1, Leipziger Strasse 5-7. Moreover, the Dresdener Turbinenfabrik has still another order for six replacement turbine blades for the power turbines of the boiler blowers (Kesselgeblaease) for ice-breakers.

5. PKE is responsible for the repair of all existing East German turbine installations. In East Germany there are approximately 3,000 turbines of various makes, for example, Brown-Boveri, Siemens-Schuckert, AEG, Borsig-Berlin-Tegel, Bergmann-Borsig, MAN and Escher-Wyes. Moreover, new installations have to be constructed for power installations which were dismantled by the Russians. In planning this work, the priority of the installation is the determining factor.

SECRET

SECRET

- 3 -

6. The following is a list of the more important new power construction projects now being carried out in East Germany.

- (1) Alten Power Plant, one turbine producing 6,350 kw, [redacted]
- 25X1 (2) Leipzig-Sued Power Plant, Machine No. V.
- 25X1 (3) Kaliwerke, Thomas Muenzer, Machine No. II, bleeder (Anzapf) condensation turbine producing 2,500 kw, to be delivered [redacted]
- (4) Magdeburg Power Plant, Machine No. V.
- 25X1 (5) Profen Kombinat, Machine No. II.
- (6) Rummelsburg Power Plant (East Berlin, Machines IV and V, type No. FH 6,000 producing 6,000 kw [redacted])
- 25X1 (7) Rodleben Power Plant, Machine No. II producing 2,000 kw, [redacted]
- (8) Antonsthal Paper Factory, one turbine producing 3,600 kw [redacted]
- 25X1 (9) Klingenberg Power Plant (East Berlin): Machine No. I, type 60029z, producing 60,000 kw; and Machine No. II, type 10008 t/F67, producing 10,000 kw; [redacted]
- 25X1 (10) Finow Power Plant, Machine I and II.
- 25X1 (11) Wolfen Film Factory: Machine No. I; Machine No. II, type 3067/12, producing 3,000 kw [redacted]
- 25X1 (12) Erfurt Power Plant, Machine No. I.
- (13) Merseburg Paper Factory, one turbine, type 587z/Mf, producing 1,250 kw [redacted]
- 25X1 (14) Zeitz Hydrierwerk, Machines Nos. I and II, type 15012/Fdn 3277, producing 15,000 kw [redacted]
- 25X1 (15) Goelzau Power Plant, one turbine, type 2506, producing 2,000 kw [redacted]
- 25X1 (16) Greiz Power Plant, one turbine producing 1,600 kw [redacted]
- (17) Brandenburg Motor Works, Basdorf, Machine No. V, type II 5051/F37, producing 5,000 kw [redacted]
- 25X1 (18) Zipsendorf Power Plant, Machine No. IV, to be delivered by Siemens-Schuckert.
- 25X1 (19) Kulkwitz Power Plant, Machine No. II, type 5158/F70 (modernized), producing 5,000 kw [redacted]
- 25X1 (20) Gardelegen Power Plant, Machine No. II.
- 25X1 (21) Amsdorf Power Plant; Machine No. IV, type 3006/F25d, producing 3,000 kw; and Machine No. V, type FA 1000, producing 1,000 kw [redacted]
- 25X1 (22) Krupp-Gruson, Magdeburg: Machine No. I; Machine No. III, type 3007a, producing 3,000 kw [redacted]
- 25X1 (23) Grube Rositz, one turbine [redacted]
- 25X1 (24) Friedenshall, Bernburg/Saale, four turbines.
- 25X1 (25) Wittenberge Oil Works, one turbine, type 2006, producing 2,000 kw, [redacted]
- 25X1 (26) Bitterfeld Box Factory, one turbine, type 16156/F70, producing 16,000 kw, [redacted]
- 25X1 (27) Schwarzhilde Synthesis Works, Machine No. III.
- 25X1 (28) Muecheln/Thuer Briquette Factory: Machine No. II, built in 1915, producing 1,400 kw [redacted] Machine No. III, to be delivered by Wumag, 9.5 atue (Atmosphaerischer Ueberdruck); 300° C. producing 3,200 kw; Machine No. IV, built in 1922, producing 3,000 kw [redacted]
- 25X1 [redacted]
- 25X1 [redacted]
- 25X1 [redacted]
- 25X1 (29) Muecheln, Tagebau Power Plant: Machine No. V, built in 1917, producing 1,600 kw [redacted] Machine No. VI, built in 1917, producing 1,600 kw [redacted] Machine No. VII, built in 1919, producing 3,590 kw, to be delivered by Wumag.
- 25X1 (30) Krumpa (Briquette Factory) Power Plant, Muecheln, Machine No. I, built in 1910, producing 1,400 kw [redacted] This machine was remodeled as a back pressure (uegendruck) turbine.

SECRET